

REMARKS/ARGUMENTS

Claims 1 and 16 have been amended. Claim 1 has been amended to incorporate the content of Claim 4. Claim 16 has been amended to be limited to use of the system in Claim 1.

Nexus Between the Claims of the Present Application and the "Sentry" Products

During the course to the 13 August interview, the Examiner indicated that the Applicants had not shown a connection between the claims pending the Application, and the Sentry products being used to discuss certain issues such as commercial success. In response, the Applicants file herewith a declaration by C. Mitch Means asserting that the products being sold by Baker Hughes Petrolite under the trade designation "Sentry Systems" and variations thereof have each and every element of Claim 1 as of the date of the declaration. The Declarant further showed a nexus between the reliability of the products embodying the elements of Claim 1 and the financial success of the invention. The Applicants respectfully assert that a connection has now been established and that the Examiner may consider representations made regarding the Sentry System products to be relevant to at least Claims 1 and 4 of the present application.

Arguments Not Repeated In This Response.

During the long course of the prosecution of the present invention, the Applicants have presented many arguments regarding the references. In the interest of avoiding prolixity of this response, the Applicant does not repeat all of these arguments. The following arguments are "new" arguments only, as suggested by the Examiner, but the Applicants maintain that the arguments already presented are still valid and are incorporated herein by reference.

U.S. Patent No. 4,721,158 to Merrit Jr., et al.

The 4,721,158 patent ('158) is a basis for the rejection of Claims 1-20. The Applicant has made earlier representations regarding this reference that it is limited to secondary recovery and not relevant to the field of the present invention. Claim 1, as currently amended reads:

A system for monitoring and controlling a supply of an additive introduced into formation fluid within a **production wellbore**, comprising:

- (a) a flow control device for supplying a selected additive from a source thereof at a wellsite to the **formation fluid being recovered from the production wellbore;**
- (b) a flow measuring device for providing a signal representative of the flow rate of the selected additive supplied to said **formation fluid in the production wellbore;**
- (c) a first onsite controller receiving the signals from the flow measuring device and determining therefrom the flow rate, said first onsite controller transmitting signals representative of the flow rate to a remote location; and
- (d) a second remote controller at said remote location receiving signals transmitted by said first controller and in response thereto transmitting command signals to said first controller representative of a desired change in the flow rate of the selected additive;

wherein the first onsite controller causes the flow control device to change the flow rate of the selected additive in response to the command signals and the system supplies the selected additive such that it is present at a concentration of from about 1 ppm to about 10,000 ppm in the formation fluid recovered from the production wellbore .

In the last response, the Applicants added further buttressing arguments that the '158 patent has additional limiting language including the use of the terms "Artificial Lift" and injections. The Applicants' arguments to date have been unpersuasive to the Examiner that the '158 patent was limited to secondary recovery.

It is the Examiner's position that Merritt, Jr. et al. discloses a fluid injection control system for controlling the injection of fluids - which could include (Col. 3, lines 21-24) a variety of chemicals and just as the device claimed by the applicants adds fluid to the well bore, so too does the device of Merritt, Jr. et al. The Examiner states that adding an additive as at 12, to the formation fluid is analogous to the claims of the present invention and is pertinent to the particular problem with which the applicant is concerned, that is, the use of a second remote controller for communicating with a first controller to transmit any desired changes in operational parameters.

There are still other proofs within Merrit that it is for secondary recovery only. The description of the cited drawing reference, 12, reads as follows at column 3, lines 21-24:

An input end of the input conduit 12 is connected to a source of the fluid. The fluid to be injected can include water, one or more inert gases (such as nitrogen and carbon dioxide), various chemicals, such as surfactants, and mixtures of any of these.

Water, inert gasses and surfactants are all characteristic of drive fluids, not the additives of the present invention. The fluids of the Merrit reference are injected into the wellbore but are then forced into the formation. At column 5, lines 59-66 and the table immediately above, it is taught to monitor the pressure of the injected fluid to prevent a "physical problem within the wellbore." What else could this be but overpressure on the formation? Again, this is very different from the injection of ppm of additives as is done with the present invention.

U.S. Patent No. 5,992,230 to Scarpa, et al.

Claim 4, now a part of Claim 1, is rejected under 35 U.S.C. §103(a) as being unpatentable over the Spivey - Merritt, Jr. et al. - Hensley combination as applied to claims 1, 2, 5-8, 10, 14, 16-18 in further in view of Scarpa. It is the Examiner's position that the system according the combination of Spivey, Merritt, Jr. et al. and Hensley as set forth above, discloses all the claimed features with the exception of explicitly disclosing the flow-measuring device to be a positive displacement flow meter. The Examiner states that Scarpa discloses (Col. 1, lines 12 97 21) that positive displacement flow meters have been successfully used in petrochemical industry since they provide reliable measurement accuracy and because their calibration does not vary with the viscosity of the fluid being metered and that it would have been obvious to one ordinary skill in the art at the time the invention was made to have provided in the combination of Spivey, Merritt, Jr. et al. and Hensley, a positive displacement flow meter as the flow measuring device since, as recognized by Scarpa et al., positive displacement flow meters have been successfully used in petrochemical industry since they provide reliable measurement accuracy and because their calibration does not vary with the viscosity of the fluid being metered.

It is the Applicants' position that the claims of the present invention, as now amended, are not obvious over the combination include SCARPA for two reasons. The first reason is stated in the Examiner's basis for the inclusion of the SCARPA reference. SCARPA teaches the use of flow positive displacement flow meters in petrochemical production. The art area of the present invention is the production of natural gas and crude oil. These are two very different fields.

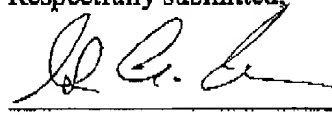
Petrochemicals are generally produced in large industrial plants such as those along the Houston Ship Channel. Oil and gas are produced in oil fields which are often remote or even out at sea. Even the engineering disciplines are different with Chemical Engineers and Petroleum Engineers being separated into separate schools at Universities. One of ordinary skill in the art of one field of these very different endeavors would not have been motivated to employ the art of the other field.

The second reason that the present invention is not rendered obvious is that the use of the flow meters of SCARPA would not have been an obvious solution to the lack of reliability of the prior art systems. One of ordinary skill in the art would not have known with a sufficient level of certainty that employment of a positive displacement flow meter would have solved reliability problems without an undue amount of research to prove that. This rejection is a hindsight reconstruction of the present invention that would not have been obvious to one of ordinary skill in the art in view of the prior art at the time of the invention.

The Applicants now respectfully assert that none of the claims are obvious in view of any combination of art that includes the '158 patent.

Allowance of Claims 1-3, 5-20 is respectfully requested.

Respectfully submitted,



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